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10/556,654	11/12/2005	Nils Karlsson	P17859-US1	6545

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EXAMINER	
AGA, SORI A	

ART UNIT	PAPER NUMBER
2419	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/556,654	KARLSSON, NILS	
	Examiner	Art Unit	
	SORI A. AGA	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 13-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/12/2007 and 11/12/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: claim 14 recites "media gateways gateway" in lines 6-7. The repetition of the term 'gateway' appears to be a typographical error. Appropriate correction is required.

2. Claim 14 recites "computer program product according to claim 1" in line 1. However, there is insufficient antecedent basis in claim 1 to support the recitation. For examination purposes, said recitation is read as "computer program product according to claim 13" since claim 13 has the first instance of such recitation in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3-7, 9, 13, 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (US 6,542,499) (herein after Murphy).

Regarding claim 1, Murphy teaches a method of controlling call admission within a system comprising a plurality of media gateways interconnected by a packet switched backbone, the method comprising the steps of: at least one media gateway**[see figure 10 items '108' and '116'; column 7 line 67 and column 8 line 4 VOIP gateways 108 and 116 are interconnected by a VOIP (IP packet switched network]**, monitoring the level of congestion suffered by incoming packets to that gateway from other media gateways or groups of media gateways over said backbone**[see fig. 10 item '114' and column 8 lines 31-44 where a congestion detector-126 detects IP network congestion suffered by incoming probe packets over network-114]**; making a decision on the admissibility of that request based upon the previously monitored level of congestion suffered by incoming packets from that peer media gateway or a group of media gateways containing the peer gateway**[column 8 line 55 – column 9 line 15 where a congestion detector in a destination gateway-116 ,which is a termination point for a VOIP call, detects a congestion and directs an IP switch in the gateway to switch calls destined for the congested address to another link.]**.

However, Murphy does not in the same embodiment teach following receipt of a request for said at least one media gateway to terminate a bearer extending over said backbone from a "peer" media gateway. However, Murphy in another embodiment teaches a terminating DDR controller, after receiving a call setup request (bearer terminate request), connects the link with the DDR controller that operates in the same way as the terminating DDR controller ("peer" gateways) [see column 11 lines 26-32]. Therefore it would have been obvious for a person having ordinary skill in the art to following receipt

of a request for said at least one media gateway to terminate a bearer extending over said backbone from a "peer" media gateway. This is desirable to because it allows the "peer" gateways to continue in setting up a communication session between two (or more) users served by each respective gateway.

Regarding claim 3, Murphy teaches the method according to claim 1 wherein the step of monitoring the level of congestion suffered by incoming packets to the one of a plurality of media gateways further comprising monitoring the rate at which packets are dropped **[column 8 lines 37-39 where congestion is detected by monitoring packet loss]**.

Regarding claim 4, Murphy teaches the method according to claim 3 wherein the step of monitoring the level of congestion suffered by incoming packets to the one of a plurality of media gateways further comprising monitoring the rate at which packets are dropped by the backbone **[column 8 lines 37-39 where congestion is detected by monitoring packet loss].**

However, Murphy does not explicitly each examining packets received at the one of a plurality of media gateways to determine whether or not they contain a congestion notification flag. However, Rao, in the same field of endeavor (VOIP) teaches monitoring congestion in a network in a Connection Admission Control by monitoring congestion notifications sent in a form of a bit within a header (flag) in a packet **[see column 4 lines 21-33]**. Therefore, it would have been obvious for a person having ordinary skill in the art to monitor the level of congestion suffered by incoming packets to a one of a plurality

of media gateways comprising examining packets received at that gateway to determine whether or not they contain a congestion notification flag. This is desirable because it allows the controller make prompt decisions on call admission and switching calls to alternate links based on real time QOS updates including congestion which allows the carrier guarantee VOIP quality of service to its subscribers.

Regarding claim 5, Murphy teaches the method according to claim 1 wherein the step of monitoring the level of congestion suffered by incoming packets to the one of a plurality of media gateways comprises associating incoming packets or packet sequences with an originating gateway based upon source addresses or parts of source addresses**[see column 10 line 66-colum 11line 3 where a controller looks for IP address identified with congestion and If congestion is detected, a link is established and the call is migrated]**.

Regarding claim 6, Murphy teaches the method according to claim 1 wherein said packet switched backbone is an Internet Protocol (IP) backbone **[see column 1 lines 65-67 and column 2 lines 63-65 where network-114 is shown to be an Internet Protocol network (VOIP)].**

Regarding 7, Murphy teaches the method according to claim 1 wherein said step of making a decision on the admissibility of a request for a media gateway to terminate a bearer, further comprises making the that decision at the media gateway **[see column 11**

line 16 – 25 and column 8 line 11 where the DDR controller that make the determination to whether to admit calls or not (making a decision on the admissibility of a request to terminate a bearer) is shown to be within gateway-116].

Regarding claim 9, Murphy teaches a media gateway arranged to control call admission within a system comprising a plurality of media gateways interconnected by a packet switched backbone**[see figure 10 items '108' and '116'; column 7 line 67 and column 8 line 4 where VOIP gateways 108 and 116 are interconnected by a VOIP (IP packet switched network)]**, the media gateway comprising: means for monitoring the level of congestion suffered by incoming packets to that gateway from other media gateways or groups of media gateways over said backbone**[see fig. 10 item '114' and column 8 lines 31-44 where a congestion detector-126 detects IP network congestion suffered by incoming probe packets over network-114]**; and means coupled to the monitoring means and a receiving means for making a decision on the admissibility of that request based upon the previously monitored level of congestion suffered by incoming packets from that peer media gateway or a group of media gateways containing the peer gateway**[column 8 line 55 – column 9 line 15 where a congestion detector in a destination gateway-116 ,which is a termination point for a VOIP call, detects a congestion and directs an IP switch in the gateway to switch calls destined for the congested address to another link]**.

However Murphy does not explicitly teach a means for receiving a request for that media gateway to terminate a bearer extending over said backbone from a "peer" media

gateway. However, Murphy in another embodiment teaches a terminating DDR controller (means for receiving), after receiving a call setup request (bearer terminate request), connects the link with the DDR controller that operates in the same way as the terminating DDR controller ("peer" gateways) **[see column 11 lines 26-32]**. Therefore it would have been obvious for a person having ordinary skill in the art to following receipt of a request for said at least one media gateway to terminate a bearer extending over said backbone from a "peer" media gateway. This is desirable to because it allows the "peer" gateways to continue in setting up a communication session between two (or more) users served by each respective gateway.

Regarding claim 13, Murphy teaches call admission within a system comprising a plurality of media gateways interconnected by a packet switched backbone **[see figure 10 items '108' and '116'; column 7 line 67 and column 8 line 4 VOIP gateways 108 and 116 are interconnected by a VOIP (IP packet switched network]**; monitoring the level of congestion suffered by incoming packets to at least one media gateway from other media gateways or groups of media gateways over said backbone **[see fig. 10 item '114' and column 8 lines 31-44 where a congestion detector-126 detects IP network congestion suffered by incoming probe packets over network-114**;
making a decision on the admissibility of that request based upon the previously monitored level of congestion suffered by incoming packets from that peer media gateway or a group of media gateways containing the peer gateway**[column 8 line 55 – column 9 line 15 where a congestion detector in a destination gateway-116 ,which is**

a termination point for a VOIP call, detects a congestion and directs an IP switch in the gateway to switch calls destined for the congested address to another link.]. However, Murphy does not in the same field of endeavor teach a computer program product within a computer usable medium. However. Murphy in another embodiment teaches gateway that is coded with software that provides the logics described in Murphy [see column 3 lines 62-65 and column 11 lines 58-59]. It would have been obvious for a person having ordinary skill in the art at the time of the invention to implement Murphy's invention within a computer usable medium. Implementation in a computer usable medium (software) is desirable because updates can be easily made (as opposed to hardware that needs re/manufacturing.

However, Murphy does not in the same embodiment teach following receipt of a request for said at least one media gateway to terminate a bearer extending over said backbone from a "peer" media gateway. However, Murphy in another embodiment teaches a terminating DDR controller, after receiving a call setup request (bearer terminate request), connects the link with the DDR controller that operates in the same way as the terminating DDR controller ("peer" gateways) [see column 11 lines 26-32]. Therefore it would have been obvious for a person having ordinary skill in the art to following receipt of a request for said at least one media gateway to terminate a bearer extending over said backbone from a "peer" media gateway. This is desirable to because it allows the "peer" gateways to continue in setting up a communication session between two (or more) users served by each respective gateway.

Regarding claim 15, Murphy teaches the computer program product according to claim 13, wherein the instructions for monitoring the level of congestion suffered by incoming packets to the one of a plurality of media gateways further comprise monitoring the rate at which packets are dropped **[column 8 lines 37-39 where congestion is detected by monitoring packet loss]**.

Regarding claim 17, Murphy teaches the computer program product according to claim 13, wherein the instructions for monitoring the level of congestion suffered by incoming packets to the one of a plurality of media gateways comprises associating incoming packets or packet sequences with an originating gateway based upon source addresses or parts of source addresses **[see column 10 line 66-colum 11line 3 where a controller looks for IP address identified with congestion and If congestion is detected, a link is established and the call is migrated]**.

Regarding claim 18, Murphy teaches the computer program product according to claim 13, wherein said packet switched backbone is an Internet Protocol (IP) backbone **[see column 1 lines 65-67 and column 2 lines 63-65 where network-114 is shown to be an Internet Protocol network (VOIP)].**

Regarding claim 19, Murphy teaches the computer program product according to claim 13, wherein said instructions for making a decision on the admissibility of a request for a media gateway to terminate a bearer, further comprises making the decision at the media

gateway gateway **[see column 11 line 16 – 25 and column 8 line 11 where the DDR controller that make the determination to whether to admit calls or not (making a decision on the admissibility of a request to terminate a bearer) is shown to be within gateway-116**].

5. Claims 2, 8, 10, 14, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy as applied to claims 1, 3-7, 9, 13, 15 and 17-19 above, and further in view of Rao (US 6,876,627 B1) (herein after Rao).

Regarding claim 2, Murphy teaches the method according to claim 1, comprising the step of monitoring the level of congestion suffered by incoming packets to a one of a plurality of media gateways as discussed above.

However, Murphy does not explicitly teach examining packets received at that gateway to determine whether or not they contain a congestion notification flag. However, Rao, in the same field of endeavor (VOIP) teaches monitoring congestion in a network in a Connection Admission Control by monitoring congestion notifications sent in a form of a bit within a header in a packet **[see column 4 lines 21-33]**. Therefore, it would have been obvious for a person having ordinary skill in the art to monitor the level of congestion suffered by incoming packets to a one of a plurality of media gateways comprising examining packets received at that gateway to determine whether or not they contain a congestion notification flag. This is desirable because it allows the controller make prompt decisions on call admission and switching calls to alternate links based on real

time QOS updates including congestion which allows the carrier guarantee VOIP quality of service to its subscribers.

Regarding claim 8, Murphy teaches the method according to claim 1 wherein the decision on the admissibility of a request for a media gateway to terminate a bearer is made at the media gateway controller controlling said at least one media gateway, **[see column 8 line 55 – column 9 line 7 and column 8 line 11 where a congestion detector and DDR controllers-110 that make the decision to switch calls (terminate a bearer) affected by congestion are shown to be within gateway-116.**]
However, Murphy does not explicitly teach the monitored congestion levels are signaled to the media gateway controller by the media gateway. However, Rao, in the same field of endeavor (VOIP) teaches a device (gateway) that receives call request and places the request to the network receives input signals indicating a level of congestion [**see column 2 lines 38-44**]. Therefore, it would have been obvious for a person having ordinary skill in the art at the time of the invention to signal the monitored congestion levels to the DDR controller recited in Murphy (media gateway controller) in order to allow the controller make prompt decisions on call admission and switching calls to alternate links based on real time QOS updates including congestion. This is desirable to ensure QOS guarantees are kept by carriers to their VOIP service subscribers.

Regarding claim 10, Murphy teaches a media gateway controller arranged to control call admission within a system comprising a plurality of media gateways interconnected by a

packet switched backbone the media gateway controller comprising **[see figure 10 items '108' and '116'; column 7 line 67 and column 8 line 4 VOIP gateways 108 and 116 are interconnected by a VOIP (IP packet switched network. see items '110' in figure 10 where a DDR controllers are shown]**; an interface towards at least one media gateway **[see figure 11 item '132' where the above mentioned DDR controller is shown to have interface which allows it to connect with other gateways as shown in figure 10];** and means coupled to both the receiving means for making a decision on the admissibility of that request based upon the congestion level suffered by incoming packets from other media gateway **[see item '110' in figure 10; item '132' in figure 12 and column 8 line 55 – column 9 line 15 where the DDR controller in a destination gateway ,which is a termination point for a VOIP call, detects a congestion and directs an IP switch in the gateway to switch calls (making decision on admissibility) destined for the congested address to another link]**.

However, Murphy does not in the same embodiment teach means for receiving a call request requiring that a media gateway terminate a bearer extending over said backbone from a "peer" media gateway; However, Murphy in another embodiment teaches a terminating DDR controller, after receiving a call setup request (bearer terminate request), connects the link with the DDR controller that operates in the same way as the terminating DDR controller ("peer" gateways) **[see column 11 lines 26-32].** Therefore it would have been obvious for a person having ordinary skill in the art to following receipt of a request for said at least one media gateway to terminate a bearer extending over said backbone from a "peer" media gateway. This is desirable to because it allows the "peer"

gateways to continue in setting up a communication session between two (or more) users served by each respective gateway.

However Muphy does not explicitly teach means for receiving monitored congestion levels from each media gateway to which the media gateway controller has an interface, the monitored congestion levels being indicative of the congestion suffered by incoming packets to the respective gateways from other media gateways over said backbone; However, Rao, in the same field of endeavor (VOIP) teaches monitoring congestion in a network in a Connection Admission Control by monitoring congestion notifications received from other gateways (each media gateway to which the media gateway controller has an interface) indicated in a header of an incoming packet **[see column 4 lines 21-33]**. Therefore, it would have been obvious for a person having ordinary skill in the art to include a means for receiving monitored congestion levels from each media gateway to which the media gateway controller has an interface, the monitored congestion levels being indicative of the congestion suffered by incoming packets to the respective gateways from other media gateways over said backbone. This is desirable because it allows the controller make prompt decisions on call admission and switching calls to alternate links based on real time QOS updates including congestion which allows the carrier guarantee VOIP quality of service to its subscribers.

Regarding claim 14, Murphy teaches the computer program product according to claim 14 including the instructions for monitoring the level of congestion suffered by incoming packets to one of a plurality of media gateways as discussed above.

However, Murphy does not explicitly teach examining packets received at that gateway to determine whether or not they contain a congestion notification flag. However, Rao, in the same field of endeavor (VOIP) teaches monitoring congestion in a network in a Connection Admission Control by monitoring congestion notifications sent in a form of a bit within a header in a packet **[see column 4 lines 21-33]**. Therefore, it would have been obvious for a person having ordinary skill in the art to monitor the level of congestion suffered by incoming packets to a one of a plurality of media gateways comprising examining packets received at that gateway to determine whether or not they contain a congestion notification flag. This is desirable because it allows the controller make prompt decisions on call admission and switching calls to alternate links based on real time QOS updates including congestion which allows the carrier guarantee VOIP quality of service to its subscribers.

Regarding claim 16, Murphy teaches the computer program product according to claim 13, wherein the instructions for monitoring the level of congestion suffered by incoming packets to the one of a plurality of media gateways further comprise monitoring the rate at which packets are dropped by the backbone **[column 8 lines 37-39 where congestion is detected by monitoring packet loss].**

However, Murphy does not explicitly each examining packets received at the one of a plurality of media gateways to determine whether or not they contain a congestion notification flag. However, Rao, in the same field of endeavor (VOIP) teaches monitoring congestion in a network in a Connection Admission Control by monitoring congestion notifications sent in a form of a bit within a header (flag) in a packet **[see column 4 lines**

21-33]. Therefore, it would have been obvious for a person having ordinary skill in the art to monitor the level of congestion suffered by incoming packets to a one of a plurality of media gateways comprising examining packets received at that gateway to determine whether or not they contain a congestion notification flag. This is desirable because it allows the controller make prompt decisions on call admission and switching calls to alternate links based on real time QOS updates including congestion which allows the carrier guarantee VOIP quality of service to its subscribers.

Regarding claim 20, Murphy teaches the computer program product according to claim 13, wherein instructions for the decision on the admissibility of a request for a media gateway to terminate a bearer is made at the media gateway controller controlling said at least one media gateway **[see column 8 line 55 – column 9 line 7 and column 8 line 11 where a congestion detector and DDR controllers-110 that make the decision to switch calls (terminate a bearer) affected by congestion are shown to be within gateway-116.]**

However, Murphy does not explicitly teach the monitored congestion levels are signaled to the media gateway controller by the media gateway. However, Rao, in the same field of endeavor (VOIP) teaches a device (gateway) that receives call request and places the request to the network receives input signals indicating a level of congestion [**see column 2 lines 38-44**]. Therefore, it would have been obvious for a person having ordinary skill in the art at the time of the invention to signal the monitored congestion levels to the DDR controller recited in Murphy (media gateway controller) in order to allow the

controller make prompt decisions on call admission and switching calls to alternate links based on real time QOS updates including congestion. This is desirable to ensure QOS guarantees are kept by carriers to their VOIP service subscribers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SORI A. AGA whose telephone number is (571)270-1868. The examiner can normally be reached on M-Th 7:30-5:00, F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571)272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. A. A./
Examiner, Art Unit 2619

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2619
9/30/08